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COVID-19 and orthodontics—A call for action

We applaud Dr Jerrold for his timely and critically important report on the challenges encountered by orthodontic practitioners in the era of the coronavirus disease 2019 (COVID-19) (Jerrold L. Exceptional circumstances. *Am J Orthod Dentofacial Orthop* 2020;157:852-5.). Although we agree with the concerns and recommendations raised in the report, we would like to supplement it with several areas of imminent concern that require our immediate attention.

First, in Canada, provincial dental regulatory authorities have ordered, in response to the current COVID-19 pandemic, a mandatory suspension of all nonemergency dental therapies, including orthodontic treatment. Although we acknowledge the need to close orthodontic practices during this time, what constitutes an orthodontic emergency has not been specified in the shutdown notice e-mails. Because many orthodontists are struggling to balance their own safety with their commitment to their patients, more concise guidance is needed for handling orthodontic emergencies using circumstance-specific protocols.¹

In general, orthodontic emergencies can arise from the following scenarios: loose intraoral fixed appliances that are fully retrievable by the patient or parent or partially loose appliances that require orthodontic intervention; fixed intraoral appliances impinging on the palate or gingival tissue; broken, ill-fitting, or missing removable appliances, aligners, or retainers; a missing or broken bracket; pokey wire; and broken or loose-ended fixed retainer. In addition, there are many scenarios for which an orthodontist may not be able to leave a patient unattended for >10-12 weeks. Examples include patients with a reverse-curve nickel titanium wire or patients having treatment to retrieve an impacted tooth. Public memos about these orthodontic emergencies, prepared by provincial (or state) dental regulatory authorities and geared toward patients, would be beneficial in communicating a uniform message to our patients. Orthodontists would then have the ability to share this public memo on social media platforms and Web sites, which can serve to educate the public and allow orthodontists to defend their position during this challenging time. Moreover, the uniformity of the message would also serve to build the specialty's trust among the general public.

Second, apart from the orthodontic emergency schemas, a clear guideline for COVID-19 testing and types of personal protective equipment (PPE) is needed in orthodontic practice. Although limited within orthodontic

practice, treatment procedures using hand drills increase the risk of virus transmission.^{1,2} These procedures include cleaning residual adhesive and cements during deband appointments, insertion or removal of clear aligner attachments, removing bite turbos, and modifying a fixed orthodontic appliance inside the mouth (eg, hyrax expanders). Currently, many orthodontists do not have the PPE needed to handle orthodontic emergencies, and they also do not have priority to get tested for COVID-19. Therefore, regulatory authorities are required to help orthodontists order the appropriate PPE and give COVID-19 testing for orthodontists equal importance as that of other medical practitioners so that we can keep our staff and patients safe.

Finally, virtual orthodontic care and consultations require regulating. As the COVID-19 pandemic worsens, many orthodontists across Canada and the United States are heading toward implementing virtualized orthodontic consultations and treatment approaches that remove the need for in-person meetings with patients.³ Orthodontists are contacting patients remotely using different platforms such as Zoom, Invisalign Team, etc., some of which are not Health Insurance Portability and Accountability Act compliant. Because this is a relatively new method of dental care delivery, clear rules and guidelines should be established regarding its use, to protect both patients and orthodontists equally. Given that dental professionals are currently performing these virtual consultations without guidelines, it is concerning that the rapid move toward virtual-based interactions may lower standards of orthodontic care. Here are a few important concerns that need to be considered immediately when contacting patients remotely:

- Obtaining informed consent and proper documentation.
- Offering patients the option to connect by e-mail if they do not feel comfortable carrying out virtual consultations or to connect by audio only, should they decline using visual aids.
- Choosing the appropriate time to contact patients (eg, during business hours) using an unknown number or private number to protect the privacy of the orthodontists.
- Disclosing financial information by e-mail as proof. Discussing orthodontic contracts verbally without written proof may lead to miscommunication and misunderstanding once the COVID-19 pandemic is over.
- Maintaining professional attire and professional setting if a virtual consult is scheduled.

- Having a Health Insurance Portability and Accountability Act-compliant application to protect the information being shared across these virtual mediums.

In conclusion, considering the uncertainty surrounding the COVID-19 situation, it is evident that there is a need for clinical measures and guidelines for use in orthodontic practices during pandemic situations. These guidelines should provide (1) clear legislation that explains which emergencies are ones that orthodontists can attend to in their clinics and which are ones that they should defer, (2) priority for COVID-19 testing and guidelines for PPE needed in orthodontic practices for specific procedures, and (3) comprehensive protocols for proper virtual consultations and appointments that assure adequate patient care. With the passing days, it seems inevitable that COVID-19 has and will forever change the way we practice orthodontics, but with unity and collegiality in the orthodontic community, we can surmount this together.

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REFERENCES

1. Meng L, Hua F, Bian Z. Coronavirus disease 2019 (COVID-19): emerging and future challenges for dental and oral medicine. *J Dent Res* 2020;99:481-7.
2. Dave M, Seoudi N, Coulthard P. Urgent dental care for patients during the COVID-19 pandemic. *Lancet* 2020;395:1257.
3. Webster P. Virtual health care in the era of COVID-19. *Lancet* 2020; 395:1180-1.

Author's response

I want to thank the authors for their response and essentially agree with everything they said. Their supplemental information, insight, and recommendations are a welcome addition to the timely discussions going on within our ranks.

Moving forward, we will literally have to re-think everything we do. This pandemic is neither over nor will it totally resolve in the near future. It is almost a certainty that there will be a second wave, and we will be dealing with limiting the spread while protecting ourselves and our patients and modifying our behavior,

both personally and professionally, as our collective situations unfold. This will probably be the last pandemic of my lifetime, but it may not be the last for our younger colleagues. This is an opportunity for us, as a specialty, to develop the skill sets necessary to deal with situations like this.

As the authors rightly pointed out, not only will we have to reconsider many issues around personal protective equipment, but also scheduling, office design, mechanical simplifications and modifications, as well as the integration of virtual orthodontic visits into our daily routines. This, of course, carries with it its own considerations, ranging from practice and patient management to governmental administrative mandates, to civil law considerations through appropriate risk management considerations.

I was recently asked by the *Journal of Clinical Orthodontics* to design an informed consent form for virtual orthodontic visits. You can download a copy from the *American Journal of Orthodontics and Dentofacial Orthopedics* Web site. Feel free to use it and tweak it, as necessary. As a caveat, some jurisdictions might not allow virtual health care visits or might mandate certain restrictions or guidelines regarding their implementation. You are advised to seek local legal counsel if you intend to offer virtual care.

Again, I thank the authors for their additional comments and pray that everyone remains safe during this trying period.

SUPPLEMENTARY DATA

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.ajodo.2020.04.007>.

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Editor's Note: Please note that the American Association of Orthodontists (AAO) believes there are certain diagnoses and evaluations that can only be performed in-person or are best performed in-person (x-rays, etc.), and as a result, the AAO believes orthodontic treatment should not begin before a physical, in-person examination/evaluation of the patient has occurred by a state-licensed dentist. -RGB